

AMENDMENTS TO THE SPECIFICATION

Please amend paragraphs 30, 34 and 35 in the manner indicated below.

[0030] Figure 4 is an isometric illustration of the left side 120a of the brain 120 with an electrode assembly 140 positioned to provide stimulation in accordance with an embodiment to the invention. In one aspect of this embodiment, the electrode assembly 140 includes a support 141 carrying a plurality of electrodes 142 (eight are shown in Figure 4). In a further aspect of this embodiment, the electrode assembly 140 is positioned to cover a plurality of the areas (described above) responsible for carrying out language-based tasks. For example, in one embodiment, the electrode assembly 140 can be sized to extend generally from the inferior frontal lobe 123 to the inferior parietal lobe 129, and can include electrodes 142 located to stimulate any of a plurality of areas between and adjacent to these structures. In any of these embodiments, the electrode assembly 140 can also include a lead 143 coupled to a power supply and/or a pulse system, as described in greater detail below with reference to Figure 6.

[0034] In one aspect of embodiments described above with reference to Figures 4 and 5, the electrode assemblies are positioned over the left hemisphere 120a of the patient's brain because the language centers of the brain are typically concentrated there. In other embodiments, the electrode assemblies can be positioned on the right side 120b of the patient's brain 120 to stimulate right hemisphere neurons. For example, as shown in Figure 6, an electrode assembly 540 generally similar to that described above with reference to Figure 5 can be positioned over the right side 120b of the patient's brain 120 between the inferior frontal lobe 123 and the inferior parietal lobe 129. Accordingly, the electrode assembly 540 can be positioned adjacent to the brain structures homologous to those described above with reference to Figures 2-4.

[0035] In one aspect of this embodiment, the stimulation applied to the right side 120b of the patient's brain 120 can recruit right-side neurons to take over functions normally provided by (now defective) tissue on the left side 120a of the patient's brain 120. In another embodiment, (used, for example, when it is determined that recruiting homologous

right-side neurons is actually detrimental to the patient's recovery of language-based functionality), the stimulation is applied to the right side 120b of the patient's brain 120 to impede or inhibit the body's attempts to recruit right-side neurons. In a particular aspect of this embodiment, the manner in which this stimulation is applied (e.g., the level of the voltage or current applied and/or the manner in which the voltage or current is varied or modulated) can determine whether the effect of the right-side neurons is enhanced or inhibited. In another embodiment, the location of the electrodes can determine whether the effect of the right-side neurons is enhanced or inhibited. In either embodiment, it can be advantageous to have a plurality of electrodes 542 (as shown in Figure 6) available on the right side 120b of the brain 120 to allow flexibility in treating the patient's language-based disorder. The plurality of electrodes 542 can be arranged along a single axis (as shown in Figure 6), or along multiple axes (e.g., as shown in Figure 4), or in an irregular pattern. In still another embodiment, the foregoing technique can be used to inhibit the body's attempts to recruit left-side neurons, for example, when it is determined that recruiting such neurons is actually detrimental to the patient's recovery.